(19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2004/090370 A1

(51) International Patent Classification7:

F16F 9/34

(21) International Application Number:

PCT/SE2004/000528

(22) International Filing Date:

5 April 2004 (05.04.2004)

(25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data: 0301095-6

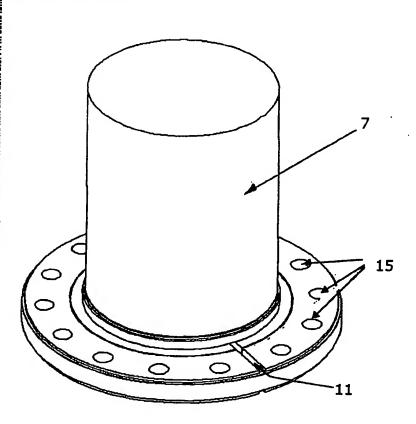
11 April 2003 (11.04.2003)

- (71) Applicant (for all designated States except US): STRÖMSHOLMEN AB [SE/SE]; Box 216, S-573 23 Tranås (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CRONHOLM, Marcus [SE/SE]; Vintergatan 14, S-595 53 Mjölby (SE). LUNDAHL, Leif [SE/SE]; Björkhagen, S-360 47 Nöbbele (SE). AXELSSON, Jakob [SE/SE]; Rydsvägen 250C: 12, S-584 34 Linköping (SE).

- (74) Agent: STRÖM & GULLIKSSON IP AB; Wallenbergs gata 4, S-583 35 Linköping (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD. MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: GAS SPRING



(57) Abstract: The invention relates to a gas spring for a pressing tool. The gas spring has a cylindrical chamber which is divided by a piston (10) into a first space (A) and a second space (B), the piston (10) being attached to a piston rod (7), which is axially moveable in the cylindrical chamber, the gas spring being designed with an opposing force to counteract a movement that is produced by forces acting axially on the piston rod (7) in that the first space and the second space are pressurised by means of a gas. Passages (11, 15, 16, 17) connect the first space and the second space and permit a flow of gas between the first space (A) and the second space (B). The passages occupy an area which is greater than 5% of the area of the piston (10) in order to reduce the amount of heat generated in the gas spring, the area of the piston being the difference between the cross-sectional areas of the cylindrical chamber and the piston rod.